Chromatic Aberration or ‘color fringing’ is a common issue that people have when using fast primes or more economical lenses. Typically, you will notice it when shooting in high contrast settings and can be fairly subtle at times but incredibly annoying. It can also make your image will look slightly soft and have slight colored edges around things in your photo. There are two causes of chromatic aberration but for the most part what is happening is that as the light passes through the lens, due to poor optical performance, the light is dispersed unevenly and all the colors don’t land on the sensor or film plane correctly.

The two kinds of Chromatic Aberrations are Longitudinal and Lateral. Longitudinal Chromatic Aberrations occur most often in fast primes lenses, even higher end ones, when wide open. Camera technology is constantly improving though and some cameras have built-in systems to reduce the chromatic aberrations that occur with lenses. Additionally, you're able to remove this kind of aberration by either stopping down to a slower f-stop or can remove them in Lightroom or other editing software.

Lateral chromatic aberration is a bit harder to get rid of and typically occurs in lower quality, more economical lenses. It occurs because as the light move through the lens, some wavelengths of colors focus on different parts of the focal plane than the majority of other colors. It mainly occurs in the edges of the frame, not in the middle and can only be removed in a post-editing software like Lightroom. While some might not notice this when looking on their camera, it will be much more noticeable when looking on your computer or when printing.

At the end of the day, chromatic aberrations can lessen the quality of your images overall look and be frustrating as a photographer. While knowing the science behind it is interesting, knowing how to fix it is far more important. It's another reason to invest more in your lenses than your camera.